

Date: Thursday, 3/23/2006 3:52:01 PM  
User: Kim Johnston

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	SADDLE FITTING, AFT (OUTBOARD/INBOARD)
<b>Job Number</b> :	26362		
<b>Estimate Number</b> :	10533	<b>Part Number</b> :	D2573
<b>P.O. Number</b> :	N/A	<b>Drawing Number</b> :	D2573 REV E
<b>This Issue</b> :	3/23/2006	<b>S.O. No.</b> :	N/A
<b>Prsht Rev.</b> :	NC	<b>Project Number</b> :	N/A
<b>First Issue</b> :	3/23/2006	<b>Drawing Revision</b> :	E
<b>Previous Run</b> :	25998	<b>Material</b> :	N/A
<b>Written By</b> :	<b>Due Date</b> :		4/10/2006
<b>Checked &amp; Approved By</b> :	<b>Qty:</b>		6 Um: Each
<b>Comment</b> :	Est: 1 As Per RevE 06-01-27 JLM		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	D6101007	7075-T7351 8.25X7.75X2.5
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**Comment:** Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

7075-T7351 8.25X7.75X2.5

Make from D6101-007 billet for D2573

Ensure that grain is along 7.75" length

Batch No: B24893 X 6

En 06/03/29

(6)

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1

Program Batch No. B26362 Double check by: J.L

1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets 2-Machine Step No 2 per

Folio FA051 and inspect per attached Dimension Sheets

3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets

4-Deburr and remove all machining marks

5-Tumble to remove sharp edges.

J.G./En 06/03/30

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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**Comment:** CONVENTIONAL MILLING MACHINE

Machine keyway as per dwg D2573 & D2574

En 06/04/01

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

J.G./En 06/03/30 6

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06.03.31	4	Flange height is 0.225" (dim 'R') ∴ 0.015" below tolerance	PH per QSI 042	see e-mail attached	PH per QSI 042	2 06.04.03		2 06.04.03

NOTE: Date & initial all entries

Date: Thursday, 3/23/2006 3:52:01 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE FITTING, AFT (OUTBOARD/INBOARD)

Job Number: 26362

Part Number: D2573

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

92 06/04/02

C

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

a.m 06-04-04

(6)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

a.m 06-04-04

(6)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

DC 06/04/05

(6)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 5792

Ref 4/6 (6)

10.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

Job Completion



in 06-04-07

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	<b>26362</b>
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b>	<b>D2573</b>
<b>Inspection Dwg:</b> D2573 Rev. E		<b>Page 1 of 1</b>

Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				see e-mail ①	2	3	4		
A	0.438	0.443	DT8682	0.438	0.438	0.438	0.438		
B	1.745	1.755		1.748	1.748	1.746	1.745		
C	3.495	3.505		3.498	3.498	3.497	3.497		
D	1.745	1.755		1.748	1.748	1.746	1.745		
E	7.990	8.010		8.004	8.004	8.006	8.006		
F	0.490	0.510		0.500	0.501	0.498	0.499		
G	0.257	0.262	DT8683	0.258	0.258	0.257	0.257		
H	0.375	0.380	DT8684	0.376	0.376	0.375	0.375		
I	0.490	0.510		0.503	0.500	0.505	0.505		
J	1.174	1.184		1.177	1.177	1.178	1.178		
K	0.558	0.578		0.568	0.568	0.568	0.569		
L	1.174	1.184		1.177	1.177	1.178	1.178		
M	1.365	1.375		1.374	1.373	1.369	1.367		
N	2.495	2.505		2.499	2.498	2.496	2.496		
O	4.119	4.129		4.123	4.122	4.122	4.121		
P	0.115	0.135		0.123	0.128	0.122	0.125		
Q	0.115	0.135		0.130	0.130	0.130	0.130		
R	0.240	0.260		0.242	0.242	0.250	0.260		
S	0.115	0.135		0.124	0.124	0.124	0.122		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	3.210	3.250		3.230	3.230	3.232	3.230		
V	0.230	0.250		0.234	0.241	0.241	0.240		
W	0.115	0.135		0.121	0.124	0.120	0.119		
X	0.308	0.313		0.311	0.310	0.310	0.310		
Y	0.760	0.765		0.761	0.766	0.760	0.760		
Z	0.352	0.372		0.362	0.362	0.365	0.365		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.625	0.624	0.632	0.635		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.242	0.241	0.249	0.256		
AE	1.500	1.520		1.512	1.511	1.513	1.515		
AF	0.115	0.135		0.130	0.130	0.130	0.130		
AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260		0.240	0.249	0.254	0.257		
AI	2.000	2.020		2.001	2.001	2.000	2.004		
AJ	0.023	0.043		0.033	0.033	0.030	0.030		
Accept/Reject									

Measured by:	<b>J. G.</b>
Date:	<b>06/03/30</b>

Audited by:	<b>mg</b>
Date:	<b>06/04/02</b>

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 26362
<b>Description:</b> Saddle, Aft Outboard	<b>Part Number:</b> D2573
<b>Inspection Dwg:</b> D2573 Rev. E	<b>Page 1 of 1</b>

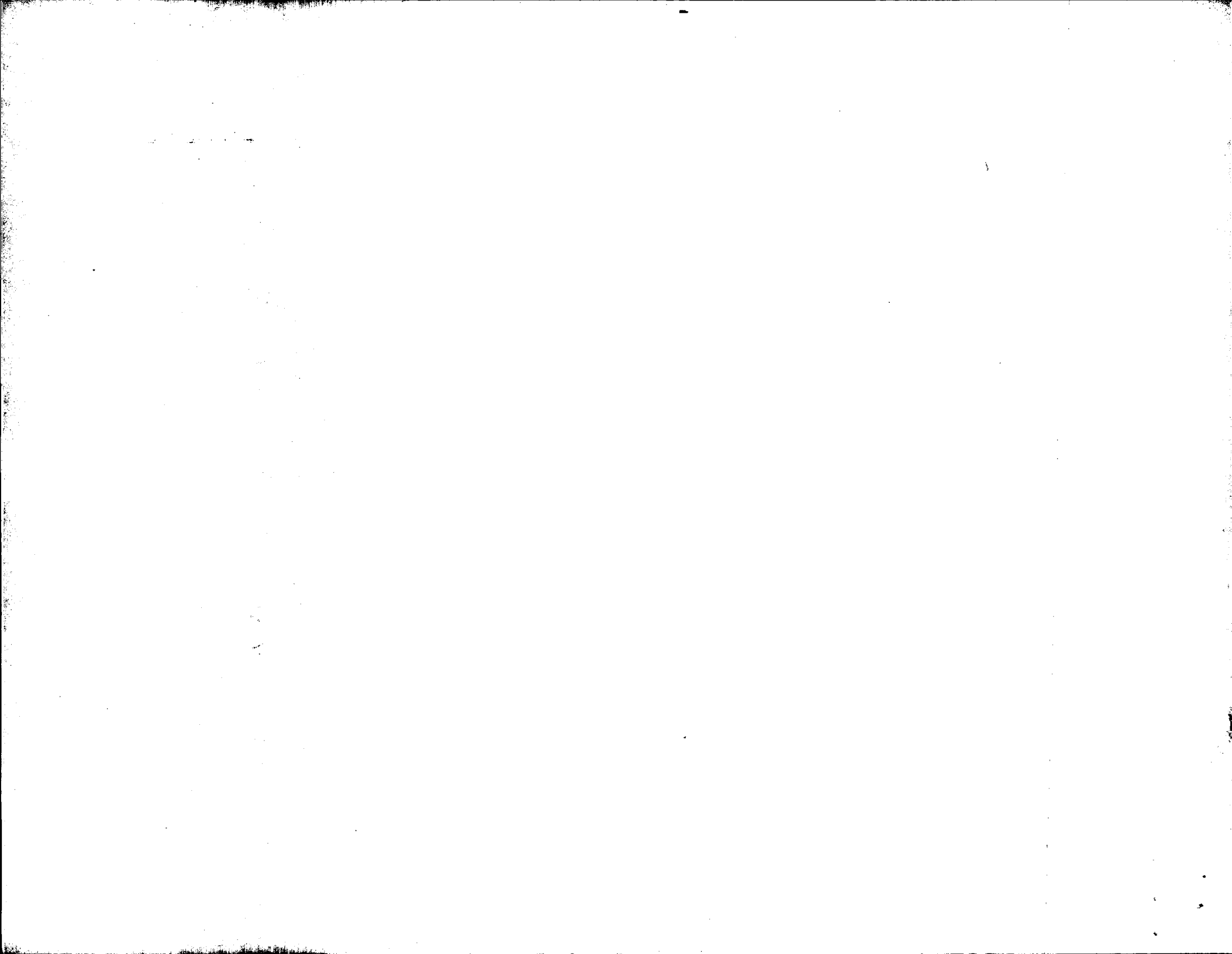
Inspect dimensions highlighted on inspection sheet drawing D2573 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	1	2	3	4		
A	0.438	0.443	DT8682	0.438	0.438				
B	1.745	1.755		1.745	1.745				
C	3.495	3.505		3.497	3.497				
D	1.745	1.755		1.745	1.745				
E	7.990	8.010		8.004	8.006				
F	0.490	0.510		0.500	0.494				
G	0.257	0.262	DT8683	0.257	0.257				
H	0.375	0.380	DT8684	0.375	0.375				
I	0.490	0.510		0.503	0.506				
J	1.174	1.184		1.178	1.178				
K	0.558	0.578		0.566	0.567				
L	1.174	1.184		1.178	1.178				
M	1.365	1.375		1.370	1.369				
N	2.495	2.505		2.496	2.496				
O	4.119	4.129		4.122	4.122				
P	0.115	0.135		0.125	0.124				
Q	0.115	0.135		0.130	0.130				
R	0.240	0.260		0.259	0.259				
S	0.115	0.135		0.125	0.126				
T	0.178	0.198		0.188	0.188				
U	3.210	3.250		3.240	3.240				
V	0.230	0.250		0.241	0.244				
W	0.115	0.135		0.118	0.120				
X	0.308	0.313		0.310	0.310				
Y	0.760	0.765		0.760	0.760				
Z	0.352	0.372		0.365	0.363				
AA	0.470	0.530		0.500	0.500				
AB	0.615	0.635		0.635	0.635				
AC	0.053	0.073		0.063	0.063				
AD	0.240	0.260		0.253	0.255				
AE	1.500	1.520		1.514	1.511				
AF	0.115	0.135		0.130	0.130				
AG	0.240	0.280		0.260	0.260				
AH	0.240	0.260		0.258	0.260				
AI	2.000	2.020		2.003	2.001				
AJ	0.023	0.043		0.030	0.031				
Accept/Reject									

Measured by: <i>EP</i>
Date: 06/04/01







Audited by: <i>JK</i>
Date: 06/04/02

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.26	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	<i>[Signature]</i>






05.12.06

MATERIAL: 7075-T7351 (QQ-A-250/12)  
(REF DART SPEC. D6102-001)  
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER  
DART QSI 005 4.3  
BREAK ALL SHARP EDGES 0.010 TO 0.020  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- |   |   |
|---|---|
|  | ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010  |
|  | ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125  |
|  | CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)   |
|  | CHAMFER 0.063" x 45° ALL AROUND   |
|  | CHAMFER 0.033" x 45° (SEE DETAIL C)  |

Technical drawing of a mechanical part, showing a cross-section (VIEW B-B) and a side view. The side view shows a profile with a central raised section and four circular features. Dimensions include 1.73, 0.20, 1.75 ± 0.005, 3.500 ± 0.005, and 8.000. Surface finish symbols (R0.66 (TYP) and R0.50 (TYP)) and a 'DART' label are also present.

E	05.07.13	ADD CHAMFER ON RIDGE NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCRP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE
DESIGN	DRAWN BY	
DS	PH	 DART AEROSPACE LTD. HAMPSHIRE, ONTARIO, CANADA
CHECKED 	APPROVED 	DRAWING NO. D2573
DATE 05.07.13		TITLE OUTER AFT SADDLE
		REV. SHEET 1 OF SCALE

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OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

DRAWING NO. 32

DRAWING NO.	REV
D2E73	

D2573	SHEET 1 OF
TITLE	SC

OUTER AFT SADDLE

2=

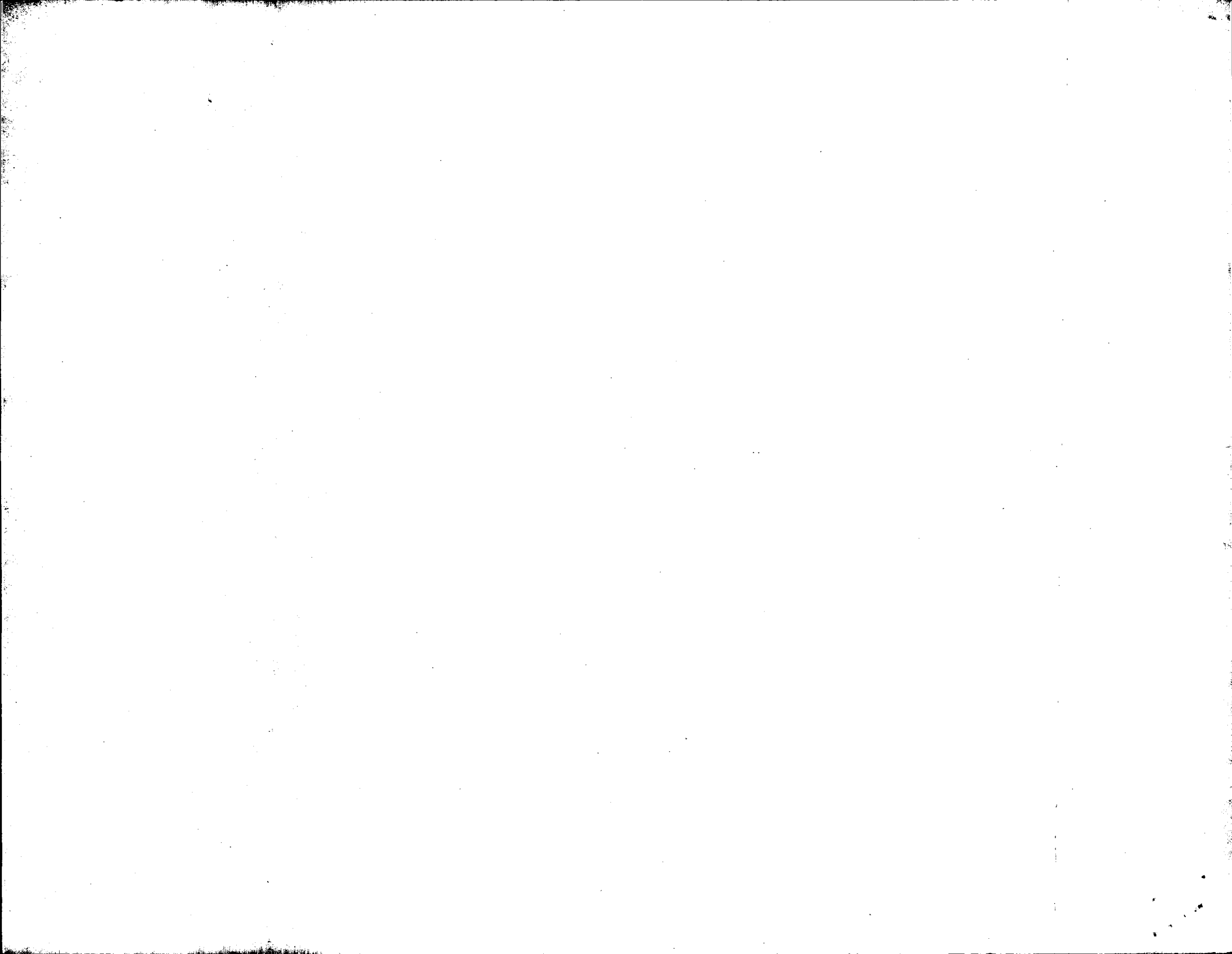
SECTION A-A

DETAIL C  
SCALE 4:3

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WORK ORDER  
NO. 26362





## Peter Hum

---

**From:** David Shepherd [davids@dartaero.com]  
**Sent:** Friday, March 31, 2006 1:17 PM  
**To:** Peter Hum  
**Subject:** Re: D2573 SADDLE BATCH #26362

This is an acceptable deviation.

David

----- Original Message -----

**From:** "Peter Hum" <phum@dartaero.com>  
**To:** "David Shepherd (E-mail)" <davids@dartaero.com>  
**Sent:** Friday, March 31, 2006 6:30 AM  
**Subject:** D2573 SADDLE BATCH #26362

> Hi David,  
>  
> Production is making a new batch of D2573 saddles. In blending radius  
> together, the thickness on the lower area of the flange is 0.225" on both  
> flanges. The thickness is this dimension locally in this region only as  
> shown in the picture. The part is 0.015" below the lower tolerance limit.  
>  
> Is this an acceptable deviation?  
>  
> This occurs only on the 1st article, the rest of the batch is at the  
nominal  
> dimension  
>  
> Peter Hum  
> Mechanical Designer  
>  
> DART Aerospace Ltd.  
> Email...phum@dartaero.com  
> Phone...613-632-3336  
> Fax.....613-632-4443  
>  
>



